Customer Benefits

- **Cost savings –** Customers do not have to invest in server hardware, server OS licenses, data center facilities and personnel.
- **Efficiency –** Sharing common equipment and resources allows for more cost-efficient operations and support.
- **Security –** Robust policies, controls and systems are designed to enhance security.
- **Scalability –** VM configurations can be modified within the existing footprint of the VM cluster as business needs change.
- **Support –** Monitoring and response by trained Admin technical staff ensures maximum utilization and minimum server downtime.

Customer vs. Admin Responsibilities

This section identifies in detail Admin and customer responsibilities for each service offering.

Responsibilities	Admin	Customer
Data Center Facilities		
Data Center power, cooling and related support infrastructure.	X	
Data Center network infrastructure.	X	
Data Center facilities security.	X	
Data Center facility structure maintenance and enhancements.	X	
Hardware		
ESXi host server hardware (processor, memory, storage for system files) at the State Data Center.	X	
ESXi host server hardware (processor, memory, storage for system files) at disaster recovery site (Clemson University data center).	X	
Virtualization software (hypervisor and virtualization management tools).	X	
Standard System Software		
VM server operating system.	X	
Standard security software (anti-virus, host intrusion detection, scanning) for VMs.	X	
Standard system management tools.	X	
Server remote access software (Citrix or Juniper).	X	
Client remote access software (Citrix or Juniper).		X
Non-Standard System Software		
Additional VM OS CALs.		X
Non-standard system management tools.		X
Non-standard security software.		X
Application Software		
Custom developed.		X
Commercially provided.		X

Responsibilities	Admin	Customer
Middleware/utility software.		X
Other software not defined above.		X
Initial Provisioning and Configuration Management of:		
ESXi host server hardware/software.	X	
Virtual machine instance.	X	
VM OS and utilities.	X	
Non-standard system software.		X
Applications and database software.		X
Patching and Lifecycle Configuration Management of:		
ESXi host server hardware/software.	X	
VM OS and utilities.	X	
Non-standard system software.		X
Applications and database software.		X
Monitoring and Fault Management – Fault Monitoring and Event Notification/Triage, Recovery and Troubleshooting (perform diagnostics, maintenance and break/fix support)		
ESXi host server hardware/software.	X	
Virtual machine instance.	X	
Virtual machine fail over instance (base disaster recovery capabilities).	X	
VM OS and utilities.	X	
Non-standard system software.		X
Applications and database software.		X
Capacity and Performance Management		
Implement and maintain tools for performance/capacity planning.	X	
Provide reporting for system performance and utilization.	X	
Monitor usage to proactively identify capacity or performance issues.	X	
Evaluate, identify and recommend changes to enhance performance.	X	
Security Monitoring and Management		
Anti-virus system management and scanning of the VM environment.	X	
Security event monitoring, detection and notification.	X	
Periodic vulnerability scanning and reporting.	X	
Security event/vulnerability remediation.	X	X
ESXi host server hardware and software.	X	
VMsSystem utilities software.	X	

All services are delivered in compliance with State of South Carolina Information Security policies, as presented in SCDIS-200.